Application No.: 10/519,436 TIP 0015USPCT EFS Amendment: November 20, 2008

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

- 1. (Canceled)
- 2. (Currently amended) A method for evaluating the effectiveness of an HIV reverse transcriptase inhibitor excluding AZT anfor a second anti-HIV therapy for a patient infected with at least one mutant HIV strain comprising:
 - (i) eollecting-receiving a sample from an HIV-infected patient who has been treated with a first anti-HIV therapy;
 - (ii) determining whether the said sample from said HIV-infected patient comprises a nucleic acid encoding HIV reverse transcriptase having at least one mutation at the position 194, wherein the wild type amino acid glutamate is mutated to glycine (E194G) as compared to the wild-type HIV strain IIIB/LAI;
- (iii) introducing said HIV reverse transcriptase inhibitor <u>for said second anti-HIV</u>

 <u>therapy</u> to said sample <u>from said HIV-infected patient containing said mutation;</u>
- (iv) comparing the effectiveness of said inhibitor in said sample containing said reverse transcriptase mutation, with a sample containing no such said mutation; and
- (v) correlating the presence of said at least one mutation of step (ii) to a change in effectiveness of said HIV reverse transcriptase inhibitor.
- 3. to 4. (Canceled)
- 5. (Currently Amended) A method for evaluating a change in susceptibility of an HIV reverse transcriptase inhibitor excluding AZT for a second anti-HIV therapy comprising:
 - eollectingreceiving a sample from an HIV-infected patient who has been treated with a first anti-HIV therapy;

Application No.: 10/519,436 TIP 0015USPCT EFS Amendment: November 20, 2008

(ii) determining whether the said sample from said HIV-infected patient comprises an HIV reverse transcriptase having at least one mutation at the position 194, wherein the wild type amino acid glutamate is mutated to glycine (E194G) as compared to the wild-type HIV strain IIIB/LAI;

- (iii) introducing said reverse transcriptase inhibitor for said second anti-HIV therapy to said sample from said HIV-infected patient containing said mutation;
- (iv) comparing the anti-HIV drug effectiveness in said sample containing said reverse transcriptase mutation with a sample not containing such said mutation; and
- (v) correlating the presence of said at least one mutation of step (ii) to a change in susceptibility of said HIV reverse transcriptase inhibitor.